

MINUTES OF THE 127TH MEETING OF THE
WATER MANAGEMENT BOARD
MATTHEW TRAINING CENTER
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA

MARCH 5 AND 6, 2003

CALL TO ORDER: Chairman Dwayne Rollag called the meeting to order at 8:30 a.m. CST. A quorum was present.

The following were present at the meeting.

Board Members Present: Dwayne Rollag, Leo Holzbauer, Rodney Freeman, Bernita Loucks, and Francis Brink. Marian Gunderson was absent.

Department of Environment & Natural Resources (DENR): Garland Erbele, Lynn Beck, Ken Buhler, Ron Duvall, Jim Goodman, Eric Gronlund, Stacy Johnson, Genny McMath, Mark Rath, Tim Schaal, Karen Schlaak, Gale Selken, and Don Stroup, Water Rights Program; Kent Woodmansey, Jeanie Votava, Jeanne Goodman, and Eric Thunstrom, Surface Water Quality Program; Tom Brandner, Anita Yan, and Sarah Speck, Ground Water Quality Program.

Attorney General's Office: John Guhin and Diane Best.

Legislative Oversight Committee: Senator Frank Kloucek, Scotland.

Water Permit No. 1781-1: Arthur and Laura Tonkyn, Deadwood.

Water Permit Nos. 6374-3 and 6375-3: Greg Bixler and Reed Bixler, Hitchcock.

Review of Future Use Permits: Geoff Heig and Jeff DeVille, city of Watertown.

Consider Well Drillers License: Arden Lemke, Mitchell.

Water Permit No. 6341-3: Jeffery Gatzke, Hitchcock.

Water Permit No. 6339A-3: Allen Gatzke, Hitchcock.

Findings of Fact, Conclusions of Law and Final Decision for Water Right No. 970-3: William St. Clair, Tulare.

Black Hills Hydrology Study: Dan Driscoll, Van Lindquist, and Janet Carter, Rapid City; Shelley Larson, Pierre.

Ordinary High Water Mark and Outlet Elevation for Twin Lakes: Jack Hieb, Aberdeen; Brian Schone and Tom Tomsha, Tulare; Jerry Wooledge and Roland Odland, Redfield.

Water Permit No. 6343-3: Kyle Jensen and Rick Cain, Mobridge; Mark Kroontje, Herreid.

APPROVE DECEMBER 4, 2002, MINUTES: Motion by Freeman, seconded by Holzbauer, to approve the minutes from the December 4, 2002, Water Management Board meeting. Motion carried.

MAY 7-8, 2003 BOARD MEETING: The next Water Management Board meeting will be May 7 and 8, 2003, in the Matthew Training Center in Pierre.

STATUS AND REVIEW OF WATER RIGHTS LITIGATION: John Guhin stated that there are no Water Management Board decisions under litigation at this time.

Mr. Guhin said he argued a Missouri River case before the 8th Circuit. The issue was whether the operation by the Corps of Engineers of the main stem reservoirs was subject to any judicial review. A decision has not been rendered.

He noted that the northeastern lakes case goes before the Supreme Court in April.

ADMINISTER OATH TO DENR STAFF: Chairman Rollag administered the oath to DENR staff members who intended to testify during the board meeting.

APPOINTMENT OF RAPID VALLEY WATER MASTER: Stacy Johnson reported that the Rapid Valley Water Conservancy District and the City of Rapid City have requested that Duane Scott be appointed as the water master for the 2003 irrigation season.

Motion by Freeman, seconded by Loucks, to appoint Duane Scott as the Rapid Valley Water Master for the 2003 irrigation season. Motion carried.

CONSIDER VIOLATIONS FOR FAILURE TO REPORT ON IRRIGATION

QUESTIONNAIRE: Genny McMath provided the board with her report on irrigation questionnaire violations.

On October 11, 2002, 2,940 irrigation questionnaires were sent by First Class Mail. The permit holders were given until December 2, 2002, to return the forms.

On January 2, 2003, 215 notices (involving 329 permits) were mailed to those irrigators who had not returned their irrigation questionnaires. All of the notices were sent by "signature confirmation requested" rather than using certified mail. When using "signature confirmation requested" the department receives verification that the notices were delivered and the recipients have signed for the notice, but it is done through the internet rather than the post office returning the green cards.

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The follow-up notices advised the permit holders that the board could take one or more of the following actions pursuant to SDCL 46-1-12 and SDCL 46-1-14:

The permit(s) could be suspended for:

1. A period of up to one year for the first violation; or
2. A period of up to three years for the second violation, which includes one previous violation.

The permit(s) could be canceled for three violations, which includes at least two previous suspensions;

The permit(s) could be amended to include the mandatory irrigation questionnaire qualification;

- Postpone any action or take no action.

The Water Rights Program recommended that the board take the following action for those permits with irrigation questionnaires not received by March 5, 2003:

Suspend the following permits/rights for one year: No. 2197-2, Gordon Flesner; No. 1470-1, William F. Holst, III; No. 3466-3, Stanley D. Lovett, Operator; No. 2116-2, Donald Schmitz; Nos. 1237-3 and 1395-3, Rolland Vander Pol; No. 5124-3, Victor L. Wiczorek; and No. 843-1, Lavern E. Wilburn.

Suspend the following for three years: No. 5309-3, Norman DeLange; No. 1113-3, Mercer Brothers; Nos. 816-2 and 973-2, Craig Mowry, renter; and No. 4317A-3, Muilenburg, Inc.

Cancellation of Nos. 529-1 and 530-1, Rod Anders.

Amend the following to add the Irrigation Questionnaire Qualification: No. 384-3, Alcoa Extrusions, Inc.; No. 3332-3, John W. Collins; No. 4247-3, William J. Curran; No. 2169-3, Carol M. Glantz; Nos. 1919-3 and 277-3, Ralph and Lucille Marquardt; No. 2480A-3, Dennis H. and Jackie McDowell, Nos. 310A-1 and 311A-1, Mooney Ranch; No. 3777-3, Dan or Sam Nachtigal, No. 4577-3, Gary L. and Arlo Nelson; and No. 3921-3, Esther Wiersma.

Motion by Freeman, seconded by Brink, to follow the recommendations for suspension, cancellation and amendment of the permits/rights. Motion carried.

REQUEST TO ADVERTISE AMENDMENTS TO SURFACE WATER DISCHARGE

PERMIT RULES: Kent Woodmansey requested permission to advertise for a public hearing in May 2003 to consider amendments to the Surface Water Discharge Permit Rules.

Mr. Woodmansey said the proposed amendments are for concentrated animal feeding operations or regulated feedlots. The department's current requirements for concentrated animal feeding operations are based on the 1972 Federal Clean Water Act, which said feedlots were to be considered point sources and regulated like other industrial categories. Because of that listing in

the Clean Water Act, the Environmental Protection Agency, in 1974 and 1976, adopted federal regulations defining a concentrated animal feeding operation. It set performance standards for concentrated animal feeding operations through the National Pollutant Discharge Elimination System (NPDES) Program. The Water Management Board adopted rules necessary to implement the NPDES Program in South Dakota in 1987, with some minor revisions to the rules made in 1992. EPA gave the state the authority to administer this program in 1993, including the authority to regulate concentrated animal feeding operations. There are currently two general permits that regulate concentrated animal feeding operations; one for swine and one for all other animals.

On February 2003, EPA published revised rules for concentrated animal feeding operations. This was after several public notices in the Federal Register. EPA received about 13,000 comments regarding the rules. Mr. Woodmansey said the state has one year to adopt these rules to keep delegation of the program. The department proposes adopting the rules by reference.

Motion by Brink, seconded by Holzbauer, to authorize the department to advertise for a public hearing to consider amendments to the Surface Water Discharge Permit Rules at the May 2003 Water Management Board meeting. Motion carried.

WATER PERMIT APPLICATION NO. 2487-2, DAVID SNYDER: Mark Rath presented his report on the application.

The application proposes to appropriate an additional 0.54 cfs from Rapid Creek by increasing the diversion rate authorized by Water Right No. 1567B-2, held by Open Bible Christian Center. No. 1567B-2 currently appropriates 0.24 cfs from Rapid Creek for the irrigation of 17 acres. The irrigation project is located on the east edge of Rapid City in Pennington County.

The applicant, Mr. Snyder, leases the land from the Open Bible Christian Center. Mr. Snyder proposes to appropriate an additional 0.54 cfs from Rapid Creek to irrigate that same 17 acres for sod production. This application would increase the authorized diversion rate to 0.78 cfs. Mr. Rath noted that this diversion rate is in excess of one cfs for each 70 acres. SDCL 46-5-6 allows for an increase in diversion rate if the method of irrigation, time constraints on diversion of water, or type of soil so requires. The applicant intends to irrigate a sod farm with a system requiring a diversion rate of 0.78 cfs, but will limit irrigation time to a maximum of six hours per day.

Mr. Rath said the Water Management Board has been granting new water rights from Rapid Creek only when stored water from Deerfield Reservoir is available to the irrigator. The Bureau of Reclamation stores water in Deerfield Reservoir and releases it for irrigation use in Rapid Valley by members of the Rapid Valley Water Conservancy District. For land to be eligible for irrigation using this project water, the land must be included within the irrigation district. Mr. Rath said this project does fall within the irrigation district, so the acres are eligible to receive project water.

When this application was advertised, the irrigation district submitted a petition citing some concerns. Since then, the irrigation district and the applicant have worked out an agreement as to how water will be delivered. The irrigation district has withdrawn its petition.

The chief engineer recommended approval of this application with the Irrigation Water Use Questionnaire Qualification, the Low Flow Qualification, and the following qualifications:

1. Permit No. 2487-2 authorizes diversion of stored water available under the Rapid Valley Water Conservancy District's contract from Deerfield Reservoir. This permit authorizes diversion of natural flow water, if available on a priority basis.
2. Pursuant to SDCL 46-5-6, which allows a greater diversion rate and volume of water if the method of irrigation, time constraints or type of soil so requires, Water Right No. 1576B-2 and Water Permit No. 2487-2, combined, authorize a maximum diversion rate applied to the land of 0.78 cfs for irrigation of 17 acres with an annual volume not to exceed three acre feet of water per acre per year. Irrigation is limited to six hours per 24-hour day.

Motion by Brink, seconded by Loucks, to approve Water Permit Application No. 2487-2, David D. Snyder, subject to the qualifications set forth by the chief engineer. Motion carried.

DROUGHT DISCUSSION: Mark Rath distributed copies of the U.S. Drought Monitor map. The Drought Mitigation Center, located at the University of Nebraska, Lincoln, compiles the information used to make this map. This map is updated and distributed every week. Mr. Rath also presented a map of South Dakota showing that all of western South Dakota is in the extreme range. The central part of the state is in the severe and moderate range and eastern South Dakota is considered abnormally dry.

Mr. Rath noted that last year the chief engineer sent an advisory letter to people in the major river basins stating that there was a good chance that if conditions weren't going to improve, shutoff orders would be likely. However, the department did not have to issue any shutoff orders last year. Mr. Rath said it is likely that some shutoff orders will have to be issued this year.

Mr. Rath noted that this information can be viewed on the internet at www.drought.unl.edu/dm.

Mr. Holzbauer asked what the department's procedure is regarding shutdown of a well. Jim Goodman said the department does not anticipate shutting anyone down. If a complaint is received, the department will investigate the complaint and attempt to see if the problem is water levels or if it is actually a well problem. If it is domestic well, the department will tell them to lower their pump. If it is an irrigation well, the department will do testing and measuring of the well. Mr. Goodman said he would be inclined to think that would be a well problem rather than a problem caused by pumping by a neighbor.

AMENDED FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL DECISION IN THE MATTER OF THE VALIDATION OF VESTED WATER RIGHTS APPLICATION NO. 2479-2, LONE TREE DITCH: On September 25, 2002, the Water Management Board adopted

Findings of Fact, Conclusions of Law and a Final Decision in the matter of Vested Water Right Application No. 2479-2, Lone Tree Ditch.

Diane Best requested that the Findings of Fact, Conclusions of Law and Final Decision be amended to include the following permit qualifications:

1. That Vested Water Right Nos. 2038-2 and 2479-2 are subject to domestic use rights. Diversion of natural flow water under these vested water rights is contingent upon supplies being available first to domestic uses.
2. That a flow measuring device be maintained at or near the point of diversion for Lone Tree Ditch.

Ms. Best said these qualifications should have been included in the Findings of Fact and Conclusions of Law, but were inadvertently omitted. DENR contacted counsel for the Lone Tree Ditch Company and counsel stipulated that the Findings of Fact and Conclusions of Law could be amended to include these qualifications.

Motion by Freeman, seconded by Loucks, to amend the Findings of Fact, Conclusions of Law and Final Decision in the matter of Vested Water Right Application No. 2479-2, Lone Tree Ditch, to include the two qualifications. Motion carried.

SEVEN YEAR REVIEW OF FUTURE USE PERMITS: All future use permits are required to be reviewed every seven years for anticipated development and future need. Eric Gronlund presented the table listing the three future use permits scheduled for review. (See attachment).

The future use reviews were public noticed in local newspapers. The department received no petitions to intervene. Letters submitted by all three of the permit holders requesting retention of the permits. The chief engineer recommended allowing the future use permits to remain in effect for the amounts shown on the table.

Geoff Heig, city of Watertown, was administered the oath by Chairman Rollag. He presented the board with information regarding production history, projections for annual peak day production through 2015, and a map of the ground water protection zone for Codington County.

Mr. Heig requested retention of future use permit No. 5862-3 for future growth of the city. He said the city has had 742 new connections and a 26.4% increase in water production from 1996 through 2002. The city intends to begin producing water from the No. 5862-3 area in 2009. The city plans to build a new treatment plant to treat its water and abandon the lake plant at the same time.

Motion by Brink, seconded by Holzbauer, to allow Future Use Permit No. 5862-3, city of Watertown to remain in effect for 3,700 AF. Motion carried.

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Motion by Freeman, seconded by Brink, to allow the following future use permits to remain in effect: No. 1443-2, West Dakota Water Development District - 10,000 AF and No. 5219-3, city of Canton - 1,175 AF. Motion carried.

NEW WATER PERMIT APPLICATIONS: The pertinent qualifications attached to approved water permit applications throughout the hearings are listed below:

Well Interference Qualification

The well(s) approved under this permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

Well Construction Rule Qualification No. 1

The well(s) authorized by Permit No. _____ shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.

Well Construction Rule Qualification No. 2

The well(s) authorized by Permit No. _____ shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

Irrigation Water Use Questionnaire Qualification

This permit is approved subject to the irrigation water use questionnaire being submitted each year.

Low Flow Qualification

Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

UNOPPOSED NEW WATER PERMITS ISSUED BY THE CHIEF ENGINEER WITHOUT A HEARING BEFORE THE BOARD: See attachment.

WATER PERMIT APPLICATION NO. 6370-3, DENNIS LELAND: Don Stroup presented his report on the application.

The application proposes to appropriate 0.04 cfs from Firesteel Creek to irrigate approximately 2.8 acres of lawn and garden. The applicant proposes to pump water from Firesteel Creek about 4.5 stream miles below Lake Mitchell in Davison County. Annual use will be from March 1 to October 1.

Firesteel Creek rises in Jerauld County and flows into Lake Mitchell, which is a manmade reservoir created to serve as the main drinking water supply for the city of Mitchell, along with

boating, fishing and other recreational uses for area residents. From Lake Mitchell the creek flows approximately nine stream miles joining with the James River east of Mitchell.

The US Geological Survey maintains a gauging station on Firesteel Creek approximately eight miles above Lake Mitchell. Historical data from 1955 through 2001 for this gauging station shows there is a 50% probability the median flow in the creek could range from zero to 5.1 cfs or greater for any given March through October yearly period. There is a 75% probability the median flow in the creek at this same location could be in the zero to 0.9 cfs range or greater for the same period in any given year. Mr. Stroup said this data indicates that Firesteel Creek is not a reliable source of water throughout the summer and early fall months during years of normal and below precipitation.

The city of Mitchell holds Vested Water Right No. 426-3, which originally was for an appropriation of 15 cfs from Firesteel Creek-Lake Mitchell for municipal use. This right was later amended from the 15 cfs withdrawal to an impoundment of 10,560 acre feet in Lake Mitchell. The city also holds Future User Permit No. 427-3 for 5,756 acre feet annual storage in Lake Mitchell.

Given that Firesteel Creek-Lake Mitchell is not a reliable source of water during years of normal and below precipitation, the city of Mitchell also obtained Licensed Water Right No. 4354-3 to augment its drinking water system. This right authorizes the diversion of 29 cfs of water from the James River for the required annual total storage of 8,430 acre feet of water in Lake Mitchell. The city is to be connected to the Bon Homme-Yankton Rural Water System in late 2003.

The Wild Oaks Golf Club holds senior Water Right No. 1371-3 and Water Permit No. 6314-3 for the combined total appropriation of 0.67 cfs of water from Firesteel Creek downstream of this project's proposed diversion point. These senior appropriations allow the maximum diversion rate of 0.67 cfs of water from Firesteel Creek to two holding ponds before application to the land during the April 1 to November 1 period.

In May 1981, Larry Little, then Mitchell city engineer, inquired about obtaining an irrigation permit from Firesteel Creek below Lake Mitchell. Replying to this inquiry, the Water Rights Program chief engineer advised that non-approval would be recommended to the Water Management Board because unappropriated water was not available during the irrigation season. During years of normal and below precipitation, available water along this reach of Firesteel Creek would be runoff from the stream's limited watershed below Lake Mitchell. Senior Water Right No. 1371-3 located below Lake Mitchell would have first priority for any available water.

Mr. Stroup said he spoke with Mr. Backlund who is the president of Wild Oak Golf Club. Mr. Backlund indicated that he did not have a problem with Mr. Leland's application to withdraw water from Firesteel Creek as long as Mr. Leland understands that the club has a senior right to the water.

The chief engineer recommended approval of Water Permit Application No. 6370-3 with the Low Flow Qualification, the Irrigation Water Use Questionnaire Qualification and the following qualification:

Diversion of water under Permit No. 6370-3 is subject to the city of Mitchell and Wild Oak Golf Club's existing prior water rights. Diversions by the permit holder may not impair existing prior water rights and shall comply with any written orders issued by the chief engineer.

Motion by Brink, seconded by Loucks, to approve Water Permit Application No. 6370-3, Dennis Leland, subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 1781-1, ARTHUR AND LAURA TONKYN: Mr. Stroup presented his report on the application.

The application proposes to impound two acre feet of Boxelder Creek water for fish and wildlife propagation. A small dam presently in place on the stream will hold the water.

The applicant proposes to impound Boxelder Creek water in a small reservoir created by a concrete and stone dam on the stream. Information supplied by the applicant states that originally there was a natural pond at this location that was enlarged by placing rocks on a geological structure in the streambed. This rock dam created a stream crossing and the three to four-foot deep pond was used in the winter to cut ice for use at the applicant's grandparents' store and gas station started in 1933 on Nemo Road. The applicant's mother inherited the property where the pond is located and the dam was not maintained. The dam, pond and general area were damaged in the 1972 flood. According to the applicant, the pond was about four feet deep in 1982 when he and his father began to rebuild the crossing and dam. The present dam is constructed of cement and stone with gated culverts that can be opened during periods of high stream flow to prevent damage to the structure. The pond is now about 5' to six feet deep at the dam's crest with a small spillway on the left bank side.

Mr. Stroup reported that in 1989, Application Nos. 1456-1 (William Meyer) and 1478-1 (Pete Lien & Sons) were submitted to the Water Management Board to divert water from Boxelder Creek for a small golf course and a mining operation, respectively. In denying these applications, the Water Management Board concluded that the withdrawal of as little as 0.06 cfs (26.9 gpm) of water from Boxelder Creek was not in the public interest and that no future water rights should be granted on Boxelder Creek in this area.

The Findings of Fact, Conclusions of Law and Final Decision in both of these issues state in part:

"The Water Management Board views the preservation of the 300 miles of trout streams of the Black Hills to be of very high significance in public interest terms. ... As articulator of policy on the use of limited water supplies, the Water Management Board places a high value on the preservation of existing cold water trout streams in the Black Hills for environmental, esthetic, and economic purposes."

The Water Management Board also found it desirable to maintain Boxelder Creek at 30% of its average flow, or five cfs.

Mr. Stroup stated that during this same time period, residents in the area formed the Boxelder Creek Association. The main purpose of the association was stopping the issuance of the Pete Lien & Sons application. Also during the Meyers application proceedings, the existence of the Tonkyn Dam was raised by Mr. Meyer with the SD Department of Game, Fish and Parks (GF&P). Personnel from GF&P checked on the Tonkyn Dam and, according to the applicant, told them the dam crossing was not a problem and was legal.

In August 2002, an on-site examination of the Tonkyn Dam was conducted by Water Rights Program personnel in response to a complaint made by the applicant's father. The examination showed water from the dam was being used to irrigate a small garden and yard with a combined area of less than an acre. A Pacer pump listed at 230 gpm capacity was being used to divert the water. The bottom of the culverts were four to six inches above the stream's channel and a small amount of water was flowing over the spillway. The gated culverts were closed, but there was water flow in the stream below the dam. At the time of the on-site examination the USGS gauging station on Boxelder Creek about 2 $\frac{1}{2}$ miles downstream from the proposed project recorded stream flow between two and three cfs. The USGS historical median stream flow in Boxelder Creek at this location for this time period is nine to 10 cfs.

Mr. Stroup said the applicant was notified by an August 22, 2002, letter that the dam constructed on Boxelder Creek violates SDCL 46-5-1.1 in that it affects the stage, level, and flow of public water. The application was also informed that the pump used for irrigation exceeded the maximum pumping rate of 25 gpm for reasonable domestic use as defined in SDCL 46-1-6(7) and ARSD 74:02:01:01, and that the present water use system required a water right permit.

On August 29, 2002, Ron Koth with GF&P visited the Tonkyn Dam site and advised the Water Rights Program that he didn't see a problem except that the dam was not licensed. On September 2, 2002, Mr. Koth further advised that he had talked to Chet Aman, a local well driller, who said he checked the Tonkyn's irrigation system and measured six gpm flow at the furthest uphill sprinkler hydrant.

The Tonkyn's subsequently filed this application to impound water for fish and wildlife use.

Mr. Stroup stated that North Boxelder, Middle Boxelder, South Boxelder, Hay and Corral Creeks rise in southeast Lawrence County and flow east merging into Boxelder Creek near Nemo. Boxelder Creek then flows southeast and east onto the prairie, merging with the Cheyenne River near Wasta. From its origins to Custer Gap, approximately five miles downstream of the Tonkyn Dam, Boxelder Creek is a perennial stream and part of the 300-mile system of Black Hills trout streams. At Custer Gap, Boxelder Creek flows onto the outcropping Pahasapa Limestone Formation. This limestone outcrop is an aquifer recharge area and Boxelder Creek water loss zone. USGS estimates the loss threshold of Boxelder Creek to be 50 cfs at the aquifer recharge zone. Boxelder Creek has no flow beyond this loss zone, except during periods of above normal stream flow conditions.

Boxelder Creek and its branches originate and flow within the geological crystalline core of the central Black Hills that consists primarily of Precambrian igneous and metamorphic rocks before reaching the Pahasapa Limestone Formation water loss zone. Base stream flow in these rock

systems can diminish quickly during periods of low precipitation in the area. There is no storage reservoir such as Pactola or Deerfield on Boxelder Creek or any of its branches to maintain a reliable water supply.

USGS historical data shows that there is a 50% probability monthly median flows in Boxelder Creek could range from 4.7 to 33 cfs or greater for any given year. There is a 75% probability monthly median flows in Boxelder Creek at this same location could be in the 2.7 to 13 cfs range or greater for any given year.

Mr. Stroup reported that there is one right for diversion of water from Boxelder Creek between the Tonkyn Dam and the stream's water loss zone at Custer Gap. Water Right No. 961-2, Louis M. Merchen, authorizes the withdrawal of 1.33 cfs of water from Boxelder Creek for irrigation use. The diversion point for this water right is just upstream of the Pahasapa Limestone Formation water loss zone. This water right has been suspended for not returning the irrigation questionnaire.

The 1989 Report for Permit Application No. 1478-1, Pete Lien & Sons, notes approximately 30 residential homes along the reach of Boxelder Creek upstream of the Pahasapa Formation water loss zone. This report further states that pumping from the creek for domestic use was fairly limited and a 1989 field investigation identified four households capable of diverting water from Boxelder Creek for domestic irrigation. Residential and commercial development has increased in the creek's drainage above the Pahasapa Limestone Formation water loss zone since this 1989 report.

In the matter of the application for Water Permit No. 1456-1, William A. Meyer, Finding of Fact No. 8 noted that:

The evidence demonstrates that the downstream users do not use the full amount of water which is legally available to them. The evidence also demonstrates that an informal convention has grown up among these persons not to use all the water legally available so as to preserve it for all who might need it. If each domestic user did use all the water to which he is legally entitled, there would be much less, if any, water in the stream.

Mr. Stroup reviewed his conclusions (listed in the report).

The chief engineer recommended approval of Application No. 1781-1, Arthur and Laura Tonkyn with the following qualifications:

1. Water Permit No. 1781-1 authorizes a dam with a storage capacity of approximately 2.0 acre feet of water. No alterations may be made to the dam which causes additional water to be impounded without first obtaining a new water right permit.
2. Permit No. 1781-1 authorizes only one fill annually unless downstream flows are sufficient to meet downstream requirements. Low flows as needed for maintaining in stream flows for downstream trout fishery purposes, and

downstream domestic use, including livestock water and prior water rights must be bypassed.

3. Permit No. 1781-1 is subject to maintaining the low flow bypass through the bottom of the dam to allow inflows to the dam to be bypassed during periods of low flows.
4. Permit No. 1781-1 does not authorize pumping from Box Elder Creek in excess of domestic use as defined in SDCL 46-1-6(7).

Arthur and Laura Tonkyn were administered the oath by Chairman Rollag. They testified regarding the history of the dam and the present state of the dam. They answered questions from the board and requested approval of the water permit.

Motion by Brink, seconded by Loucks, to approve Water Permit Application No. 1781-1, Arthur and Laura Tonkyn, subject to the qualifications set forth by the chief engineer. Motion carried. Freeman cast the only dissenting vote.

WATER PERMIT APPLICATION NOS. 6376-3 AND 6377-3, LDL CATTLE COMPANY:

Jim Goodman presented his reports on both of the applications.

Application No. 6376-3 proposes to appropriate 0.22 cfs (100 gpm) from one well approximately 1,515 feet deep in Edmunds County. Application No. 6377-3 proposes to appropriate 0.27 cfs (120 gpm) from one well approximately 1,540 feet deep. Both wells are in Edmunds County and are for commercial use in a cattle feedlot operation.

The aquifer is the Inyan Kara, which is a group name for a series of rocks named in the Black Hills area of South Dakota. The names in South Dakota are the Fall River, Fuson and Lakota members in descending order by age. The aquifer is confined and under artesian conditions. Wells completed into the Inyan Kara in this area all free flow at the land surface and may have high shut-in pressures.

The reported shut-in pressure on one well was 225 psi when drilled in 1990. Both of these wells free flow in the 100 gpm to 120 gpm range.

The Water Rights Program monitors observation well ED-85B completed into the Inyan Kara and located about 12 miles east and north of this application. Water levels for this well do not fluctuate.

The nearest existing water permit from the Inyan Kara is held by the city of Ipswich and is located about 4 $\sqrt{2}$ miles northwest of this application. These wells are used only as backup as the city is served by the WEB Rural Water System. Interference is not a concern.

Mr. Goodman noted that these wells have been used for this feedlot facility for many years with no apparent problems.

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The wells were constructed as "slim hole" wells, which is allowed only for domestic use. The department recognizes the fact that these are existing wells, and at the time the wells were drilled this practice was allowed for this use. If one of the wells goes bad and it has to be replaced, the new well would have to be drilled under a different set of standards.

The plans and specifications for this facility are presently under review by the department.

The chief engineer recommended approval of Application Nos. 6376-3 and 6377-3, LDL Cattle Company with the Well Interference Qualification and the following qualifications:

1. Permit Nos. 6376-3 and 6377-3 are subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-112 for concentrated animal feeding operations.
2. Permit Nos. 6376-3 and 6377-3 are subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions.

Motion by Freeman, seconded by Holzbauer, to approve Water Permit Application Nos. 6376-3 and 6377-3, LDL Cattle Company, subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 6374-3, BIXLER FARMS: Mr. Goodman presented his report on the application.

The application proposes to appropriate 3.56 cfs from two wells approximately 60 feet deep to irrigate 360 acres in Spink County.

The aquifer is the Tulare Hitchcock. The Water Management Board has deferred a number of water permit applications from the Tulare Hitchcock and Tulare Western Spink aquifers because of concerns that pumping from those aquifers would exceed the estimated average annual recharge to the aquifers. The board chose to defer permits because there were undeveloped and newly issued permits, which when fully developed could affect water availability from the aquifers. The board decided to keep these applications deferred for five years to allow time for development of the permits and aid in the determination of water availability.

Mr. Goodman said this application would fall below those other deferred applications in priority date.

The chief engineer recommended deferral of this application based on the board's previous decision to defer future applications from this aquifer for a period of five years.

Mr. Freeman noted that the board determined that if water becomes available within the five-year period, the board will consider the deferred applications in the order in which they are listed on the list that was given to the board at the December 2002 meeting.

Motion by Freeman, seconded by Holzbauer, to defer Water Permit Application No. 6374-3, Bixler Farms, for a period not to exceed five years, and to add this application to the bottom of the list that was given to the board at the December 2002 meeting. Motion carried.

WATER PERMIT APPLICATION NO. 6375-3, BIXLER FARMS: Mark Rath presented his report on the application.

The application proposes to appropriate 5.35 cfs from the James River to irrigate 480 acres. The proposed project is located about 12 miles east of Tulare in Spink County.

Mr. Rath reported that the James River has a 200 cfs appropriation limit for the river reach from the North Dakota state line to the Huron Third Street Dam. At this time there are 59 water rights/permits appropriating 147.2 cfs from this river reach. There is also a 300 cfs total limit for the James River from the North Dakota state line to the Yankton/Hutchinson county line. There are currently 116 water rights/permits appropriating 266.7 cfs from the James River. There is also an existing future use permit held by the Oahe Conservancy Subdistrict for the James River with a priority date of November 7, 1963.

Mr. Rath said the James River cannot be considered a dependable source of water. Many water rights/permits appropriating water from the James River are subject to specific qualifications addressing normal seasonal low flows and have historically been subject to shutoff orders.

The chief engineer recommended approval of the Water Permit Application No. 6375-3 with the following qualifications:

1. Diversion of water from the James River shall be in accordance with the following criteria:
 - When pumping from the James River, low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.
 - From May 1 to June 30, diversions from the James River are authorized only when the flow at the Huron Third Street Dam is at least 63 cfs while pumping under this permit.
 - From July 1 to October 1, diversions from the James River are not authorized unless by written orders issued by the chief engineer.

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- Diversions under this permit shall be in accordance with any written orders issued by the chief engineer.
2. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

Mr. Rath noted that the Water Rights Program will be looking at the number of permits on the James River. Because of the number and location of James River water rights continue to change, the Water Management Board, at some time in the future, may want to review the bypass qualifications for all James River water rights/permits. These qualifications may need to be adjusted to reflect the most current status of diversions from the James River.

Reed Bixler was administered the oath. He asked about the qualifications that were placed on the Oscar, Inc. permit.

Mr. Rath answered that the qualifications are essentially the same. The only difference is that the qualifications for Bixler Farms are specific to the May 1 start date.

Mr. Bixler asked if a shutoff order is issued, would it be issued before May 1.

Mr. Rath stated that Bixler Farms listed May 1 to June 30 as the period of time they intended to divert water. Bixler Farms can either contact the department to check the flows at the Third Street Dam gauge, or they can obtain the information on the internet at the USGS web site.

Motion by Brink, seconded by Freeman, to approve Water Permit Application No. 6375-3, Bixler Farms, subject to the qualifications set forth by the chief engineer. Motion carried.

CANCELLATION CONSIDERATIONS: Eric Gronlund reported that seven rights/permits were scheduled for cancellation. The right/permit owners on the cancellation list were notified of the hearing and the reasons for cancellation. No letters of opposition to the cancellations were submitted.

The following were recommended for cancellation for the reasons listed.

Water Right No. 949-1 filed by Charles Fields; abandonment
Water Permit No. 917-2 filed by Art Schimkat now owned by the city of Ft. Pierre;
abandonment/forfeiture
Water Right No. 453-3 filed by Bernadette or David Hacecky; abandonment/forfeiture
Water Right No. 1109-3 filed by George Whitehead now owned by VeraSun Energy;
abandonment/forfeiture
Water Right No. 1159-3 filed by Paul Van Overschelde; abandonment/forfeiture
Water Permit No. 3645-3 filed by E E Rozell; abandonment/forfeiture
Water Permit No. 5790-3 filed by Sodrarc Park now owned by N Soo Developers, c/o Kristi Kuhnert; abandonment/forfeiture

Motion by Freeman, seconded by Brink, to cancel the seven water rights/permits for the reasons listed. Motion carried.

CONSIDER WELL DRILLER'S LICENSE FOR HOWIE CONSTRUCTION: Ken Buhler presented the board with copies of Mr. Howie's letter of application and the chief engineer's recommendation.

SDCL 46-6-9 states that a well driller's license cannot be issued unless the applicant is experienced and knowledgeable in good well construction methods.

ARSD 74:02:01:42.03 requires the applicant to include documentation by the well driller's license representative showing at least five years of experience and qualifications in properly completing specified types of wells to be drilled and constructed. Other documentation in lieu of experience may be submitted showing qualifications and ability to properly complete specified types of wells to be drilled and constructed.

Ken Buhler stated that the Water Rights Program reviewed Mr. Howie's application and recommended denial because of lack of documentation by Mr. Howie that he has five years of experience and qualifications in completing wells.

Mr. Buhler noted that Mr. Howie was not present at the meeting.

Mr. Freeman stated that Mr. Howie's letter indicates he has been working on wells and installing pumps for 30 years. Mr. Freeman said he believes Mr. Howie has a great deal of experience and he is qualified to receive a well driller's license.

Mr. Holzbauer expressed concern that Mr. Howie may be knowledgeable in working on wells but may not have experience with drilling deep wells.

John Guhin suggested that the board consider revising the well driller's license rules sometime in the future. But as long as the current rule is in place, the rule is binding.

Mr. Freeman said the board can consider Mr. Howie's application under the last sentence of the rule. (Other documentation in lieu of experience may be submitted showing qualifications and ability to properly complete specified types of wells to be drilled and constructed)

Mr. Rollag said if Mr. Howie were present at the meeting the board could ask him some questions about his knowledge and experience.

Motion by Freeman, seconded by Loucks, to grant a well driller's license to R. Chris Howie, Howie Construction, Hermosa, SD.

Mr. Freeman stated that there is nothing in the record to dispute Mr. Howie's letter. The letter clearly indicates that the board can take in these considerations to override the five-year rule because the board has that flexibility pursuant to the administrative rules that have been

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discussed. Mr. Howie's letter is a part of the record and according to Mr. Buhler, there is nothing he is aware of that would contradict the experience that Mr. Howie has set forth.

Mr. Holzbauer asked if there are any requirements or specific qualifications on this motion.

Mr. Freeman said if Mr. Howie has a well driller's license, he is subject to all the standards and rules that any well driller is subject to.

Mr. Holzbauer said he believes Mr. Howie should be strongly scrutinized until he shows the board some responsible performance.

Mr. Brink stated that Mr. Howie's letter does not contain any information showing that he has experience in drilling wells.

At the request of the board, Mr. Buhler read ARSD 74:02:01:42.03 into record.

Mr. Guhin said the rules need to be read in light of the statute which says, "No license may be issued unless the applicant is experienced and knowledgeable in good well construction methods."

He stated that the board needs to consider whether Mr. Howie's letter talks about good well construction methods, and is it in sufficient form for the board to believe that is equivalent to five years of experience.

Ms. Loucks said in his letter Mr. Howie claims he has been working on wells and installing pumps for 30 years.

Referring to Mr. Howie's letter, Mr. Freeman highlighted all the experience and licenses Mr. Howie has.

Mr. Rollag said he would vote in favor of granting the license based on all the information included in Mr. Howie's letter.

Responding to a question from Ms. Best, Mr. Buhler stated that he does not dispute nor validate any of the statements Mr. Howie makes in his application letter.

A debate took place among some of the board members regarding the well driller's license rules.

Mr. Rollag said the board should probably consider revising the rules in the future. He called for a vote on the motion.

The motion carried with Freeman, Loucks, and Rollag voting aye. Holzbauer and Brink voted no.

The Water Rights Program waived Findings of Fact and Conclusions of Law. Ms. Best said the board's concerns are duly noted.

CONSIDER WELL DRILLER'S LICENSE FOR LEMKE DIGGING AND GEOTHERMO DRILLING: Mr. Buhler presented the board with copies of Lemke Digging and Geothermo Drilling's application and the chief engineer's recommendation.

He noted that the application indicates the company has a drill rig and has worked with Millbrook Colony for about two years. The application indicates that in 2002, Millbrook Colony drilled 26 geothermal systems, which amounted to 90 holes. There were 27 systems constructed in 2001. Twenty-four of those systems were for Hutterite Colonies and three were for non-colonies.

Mr. Buhler stated that the Water Rights Program reviewed the application recommended denial because of lack of documentation by Lemke Digging and Geothermo Drilling that the company has five years of experience and qualifications in completing wells.

Arden Lemke was administered the oath by Chairman Rollag. He testified that he intends to drill strictly geothermal wells with no intentions to drill water wells. He stated that Millbrook Colony showed him how to drill the wells. Mr. Lemke then purchased a geothermal well rig from the colony and the colony asked Mr. Lemke to obtain his own well driller's license.

Moved by Freeman, seconded by Loucks, to grant a well driller's license to Arden Lemke, Lemke Digging and Geothermo Drilling, for the drilling of only closed loop systems. Motion carried. Holzbauer cast the only dissenting vote.

WATER PERMIT APPLICATION NO. 1779-1, CITY OF SPEARFISH: Ken Buhler presented his report on the application.

The application proposes to appropriate an additional 0.022 cfs and to add irrigation use to Water Permit No. 1194-1. Water Right No. 1194-1 currently authorizes diversion of 0.2 cfs from one well 304 feet deep in Lawrence County for commercial and industrial use. This application proposes to increase the diversion rate from the well from 0.2 cfs (90 gpm) to 0.222 cfs (100 gpm) to irrigate 18 acres of municipal sports complex.

The aquifer is the Minnekahta Limestone. The aquifer is an extensive aquifer throughout the Black Hills and extends into Wyoming, but it is only 40 feet thick. Minnekahta is confined and under artesian conditions at this location.

Mr. Buhler stated that water is available from the aquifer. The Water Rights Program monitors four observation wells in the Minnekahta aquifer. The nearest observation well is located about one mile from this application. Measurements taken from this well indicate the water level fluctuates naturally, as much as 70 feet, in response to seasonal and annual climatic conditions.

The Minnekahta is a major source of water in this area. There are a total of 27 water rights/permits appropriating water from the Minnekahta in South Dakota. Fourteen are within three miles of this application. Because of the distance and the relatively low pumping rate, no adverse impacts are expected.

Mr. Buhler said there were controversial time periods for ground water appropriations in this area in the 1960's. In December 1960, the SD Water Resources Commission requested that the SD Geological Survey prepare a report on the artesian aquifers in this area because of a perceived decline in pressure of the aquifers. Water permits issued by the Commission at that time contained the following qualification:

This well appears to be in an artesian basin having limited supplies, and restrictions as to flow and time of flow may be made by the Commission to protect prior water rights.

Mr. Buhler stated that in 1979, the Water Rights staff investigated a complaint that involved interference between wells in this area. The conclusion of the staff investigation stated that while the wells had lost flow, there was still sufficient water available to meet their needs with the aid of a pump.

In 1984, Water Right Application No. 1313-1 was contested over well interference concerns. That application was approved and there hasn't been any reported controversy.

Mr. Buhler stated that before the Water Rights Program received this application from the city of Spearfish, a complaint was submitted by Jeff Stock, who was concerned that the city was using this well and it was interfering with his water supply. Mr. Buhler said a well completion report from a well for Jeff Stock located about $\frac{1}{4}$ mile away from this well is on file with the Water Rights Program. This report indicates the "Stock" well is 300 feet deep and is completed into the Minnekahta aquifer. The report indicates that in January 1999, the well flowed 48 gpm and had a closed in pressure of 14 psi.

Mr. Buhler said the hydrograph included in his report shows that water levels are at least 35 feet lower now than they were in 1999. That is natural fluctuation. He said it is not surprising that Mr. Stock's well quit flowing since it was constructed in 1999, but it had nothing to do with water usage by the city of Spearfish.

Mr. Buhler noted that the Water Rights Program sent Mr. Stock notification of this permit application and did not receive a petition from him.

Mr. Buhler noted that this is an existing well that does not meet the board's rules for an adequate well in that it only penetrates the aquifer by 10 feet, so water law does not provide protection for this well in the event of interference from other wells.

The chief engineer recommended approval of Water Permit Application No. 1779-1, city of Spearfish with the Well Interference Qualification, the Irrigation Water Use Questionnaire Qualification and the following qualification:

The well approved under this permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

Motion by Freeman, seconded by Holzbauer, to approve Water Permit Application No. 1779-1, City of Spearfish, subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 6341-3, JEFFERY GATZKE: Diane Best offered DENR Exhibit 1, the department's file on the application and DENR Exhibit 2, Jim Goodman's curriculum vita. Both exhibits were accepted into the record.

Jim Goodman reported that this application is located about nine miles east and four miles north of Hitchcock or 13 miles south and three miles east of Frankfort. At its December 2002 meeting, the Water Management Board deferred this application to allow Mr. Gatzke time to show that he will not increase the amount of water historically applied to the land.

The application proposes to appropriate 1.78 cfs (800 gpm) from a well about 60 feet deep in the Tulare East James Aquifer to irrigate 132 acres in Spink County. Approval of this permit would allow two pivots to run simultaneously.

Mr. Goodman noted that in his report, he concluded that the aquifer is fully appropriated and this proposal would use more water. The chief engineer recommended denial of the application.

Jeffery Gatzke was administered the oath by Chairman Rollag. Mr. Gatzke testified that on September 10, 2002, he received a letter from the Water Rights Program requesting that he provide the following records and information: 1) Records from power meters at the electrical switch indicating when the well was operated; 2) The pump rate information for the pump well; and 3) inches of water applied to each quarter for the years that Mr. Gatzke controlled the property.

Mr. Gatzke said on February 5, 2003, he received a letter from the Water Rights Program confirming that he had submitted pump information, electrical records and past water use information.

Mr. Gatzke showed a map of the two quarters that presently share one well. Mr. Gatzke said he would like to switch the wells to low pressure and switch the pivot sprinklers to drop nozzles. This means the well would be pumping 400 to 500 gpm at 40 psi versus it currently pumping 1,000 gpm at 80 psi. Mr. Gatzke said this would mean a better management tool to be applying the water to the crops with less gallons being taken from the aquifer. He said he currently feels like he needs to keep that one well constantly running, alternating the pivots back and forth whether the crops need the moisture or not. With two wells, Mr. Gatzke said he can be a better manager, only irrigating when it is necessary. The low pressure costs less to run and it is more efficient because he won't have to pump water that extra half mile to the next pivot.

Mr. Gatzke said he believes he will use less water with two wells by irrigating in a timely manner, when he needs it, and only pump out 400 to 500 gpm versus the 1,000 gpm.

Mr. Gatzke said no one objected to his application. He answered questions from the board regarding how he currently irrigates and his proposal.

Mr. Freeman asked Mr. Goodman if there were qualifications that could be placed on this permit to insure that Mr. Gatzke does not use any more water than he did under the old system.

Mr. Goodman presented the board with the following suggested qualifications.

1. The well approved under this permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This permit is approved subject to the irrigation water use questionnaire being submitted each year.
3. Permit No. 6341-3 limits the annual volume of water diverted to 244 acre feet of water annually to irrigate 262 acres authorized by Water Right No. 4753-3. Permit No. 6341-3 authorizes an increase in the diversion rate of 1.78 cfs to 3.66 cfs without increasing the historical annual volume of water pumped which is 244 acre feet. The total amount of water applied may not exceed 11 inches per year.
4. A water meter with a readily accessible read out must be installed at the well sites and an hour meter must be installed at the electrical switch box supplying power to the system. Records must be kept for the meters and reported on the annual irrigation water use questionnaire.
5. Permit No. 6341-3 for the well and increased diversion rate shall have a priority date of July 12, 2002.
6. The well authorized by Permit No. 6341-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

Motion by Freeman, seconded by Loucks, to approve Water Permit Application No. 6341-3, Jeffery Gatzke, subject to the qualifications set forth by the chief engineer. Motion carried.

WATER PERMIT APPLICATION NO. 6339A-3, ALLEN GATZKE: Diane Best offered DENR Exhibit 1, DENR's file on the application and DENR Exhibit 2, Jim Goodman's curriculum vita. The exhibits were accepted into the record.

Mr. Goodman presented his report on the application.

This application proposes to amend Water Permit No. 6339-3 by transferring a portion of the permitted acreage and a point of diversion to other land. Water Permit No. 6339-3 appropriates 3.56 cfs from two wells approximately 60 feet deep to irrigate 320 acres. This application proposes to move the location of 160 acres of the 320 acres approximately two miles to the

southeast. The water source will remain the same and no increase in the diversion rate or amount of acres irrigated would be authorized by this application.

Mr. Goodman noted that the applicant drilled a test hole on the new acreage and the results indicate the Tulare Hitchcock aquifer was encountered from a depth of 17 to 72 feet below land surface. The test hole had a static water level of about 15 feet below land surface.

The Water Rights Program monitors an observation well with a continuous recorder located about $\frac{1}{2}$ mile from this location.

Mr. Goodman noted that there is a deferred water permit application No. 6348-3 on the same land as this application. Approval of this application must also require the withdrawal or denial of water permit application No. 6348-3.

The chief engineer recommended approval of this application with the Well Interference Qualification, Well Construction Rule Qualification No. 2, the Irrigation Water Use Questionnaire Qualification, and the following qualification:

The approval of Permit No. 6339A-3 withdraws deferred Water Permit Application No. 6248-3 from future consideration.

John Guhin read SDCL 46-5-34, which provides that all water used for irrigation purposes shall remain appurtenant to the land upon which it is used. However, if for any reason it should become impracticable to use all or any part of the water beneficially or economically for irrigation of any land to which the right of its use is appurtenant, all or any part of the right may be severed from the land and simultaneously transferred and become appurtenant to other land without losing priority of right previously established, subject to existing rights, upon approval of an application for an amended permit.

Allen Gatzke was administered the oath by Chairman Rollag. He asked if Water Permit No. 6348-3 could be placed at the bottom of the list of deferred applications. He noted that No. 6339A-3 is closer to where he wants to irrigate.

Jeffrey Gatzke said they would like to place No. 6339A-3 on the list where No. 6348-3 was and move No. 6348-3 to the bottom of the list.

Staff stated that Mr. Gatzke would have to submit a new application, then it would be placed at the bottom of the deferred applications list.

Mr. Freeman asked Mr. Gatzke if he would agree to withdraw No. 6348-3 from future consideration.

Motion by Freeman, seconded by Loucks, to approve Water Permit Application No. 6339A-3, Allen Gatzke, subject to the qualifications set forth by the chief engineer. Motion carried.

FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL DECISION FOR APPLICATION NO. 1769-1, DUWAYNE MAHLEN:

Motion by Freeman, seconded by Loucks, to adopt the Findings of Fact, Conclusions of Law and Final Decision as proposed by the board's attorney in the matter of Water Permit Application No. 1769-1, DuWayne Mahlen. Motion carried.

FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL DECISION FOR CANCELLATION OF A PORTION OF WATER RIGHT NO. 970-3, WILLIAM ST. CLAIR:

Mr. Guhin stated that the Water Rights Program submitted two suggested changes, and he recommended the board adopt the two changes.

Mr. Guhin said he received a letter, dated February 24, 2003, from Mr. St. Clair requesting a continuance. Mr. Guhin noted that he had no objection to a continuance.

Ms. Best stated that the Water Rights Program had no objection to continuing this matter until the May 2003 board meeting, but asked that the May 2003 board meeting be established as an absolute date for determining Findings of Fact and Conclusions of Law. The reason is that irrigation did occur of this parcel a year ago, and the decision on this cancellation needs to be made prior to the 2003 irrigation season.

The board established April 25, 2003, as the deadline for Mr. St. Clair to submit comments to the board.

Motion by Freeman, seconded by Holzbauer, to continue this matter until the May 2003 Water Management Board meeting, and that Mr. St. Clair's comments must be submitted no later than April 25, 2003. Motion carried.

EXECUTIVE SUMMARY OF BLACK HILLS HYDROLOGY STUDY: BLACK HILLS HYDROLOGY STUDY REPORT: Janet Carter and Dan Driscoll, US Geological Survey, and Van Lindquist, West Dakota Water Development District, presented a report on the Black Hills Hydrology Study. They also provided the board with an atlas of water resources in the Black Hills area.

Chairman Rollag declared the meeting in recess until the following morning.

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Chairman Rollag called the meeting back to order at 8:30 a.m. A quorum was present.

CONSIDER ESTABLISHMENT OF AN ORDINARY HIGH WATER MARK AND OUTLET ELEVATION FOR TWIN LAKES IN SPINK COUNTY AND VALIDATION OF

RECOGNIZED WATER RIGHT CLAIM NO. 1635-3, TWIN LAKES: Diane Best represented the Water Rights Program, Gary Richter represented the Department of Game, Fish and Parks, Jack Hieb represented Brian Schone, and Jerry Wooldedge appeared pro se. These parties provided opening statements.

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Diane Best offered DENR Exhibit 1 - the department's file on this matter, DENR Exhibit 2 - Lynn Beck's curriculum vita, and DENR Exhibit 3 - photographs, map and graph. The exhibits were accepted into the record.

Lynn Beck was administered the oath by Chairman Rollag. She presented the board with copies of her report.

Ms. Beck reported that on February 26, 2002, the Water Rights Program received a written request for the establishment of an Ordinary High Water Mark (OHWM) elevation for Twin Lakes from Mr. Roland Odland, a riparian landowner. In response to this request, an investigation was conducted in the summer and fall of 2002 to determine elevations to be recommended for the OHWM and outlet elevation.

The meander line was surveyed around Twin Lakes in 1879. Twin Lakes are located in southwestern Spink County about six miles south of the city of Redfield. The Twin Lakes have a watershed area of about 9.3 square miles and a surface area of about 1,400 acres at the outlet elevation.

The South Dakota Department of Game, Fish and Parks holds Vested Water Right Claim No. 1635-3 for water stored in Twin Lakes for recreational purposes. The claim holds a 1934 priority date for sufficient water from local drainage and Turtle Creek to maintain Twin Lakes water level to the outlet elevation.

Twin Lakes lies over two management units in the Tulare aquifer. The Western Spink aquifer is a confined or buried aquifer and the Tulare Hitchcock is a water table aquifer. Attachment 5 of Ms. Beck's report is a graph of Twin Lakes and Observation Well SP-66K water levels, Fall 1983 to Fall 2002. Attachment 6 is a graph of Observation Well water levels, Fall 1983 to Fall 2002. General fluctuations in the water levels in these wells follow measured lake levels for Twin Lakes over the last 20 years. This does not mean that there is a direct connection between Twin Lakes and the underlying aquifer. The Western Spink aquifer management unit may respond quickly to climatic conditions if near the area of recharge. Water table aquifers, such as the Tulare Hitchcock management unit, tend to respond quickly to climatic conditions. It appears that Twin Lakes has been most influenced by yearly precipitation and evaporation that occurs in this area.

Ms. Beck stated that the Water Rights Program has been measuring water levels on Twin Lakes since the fall of 1983. In that time there has been a 17 foot fluctuation of water levels. The lowest measurement, 1285.5 fmsl, was in the fall of 1983. The highest level was measured in the spring of 1998 at 1302.7 fmsl. Evidence around the lake shows the lake level did get higher than 1302.7 fmsl.

Ms. Beck said there is a dam on Turtle Creek, which diverts water down a constructed diversion channel to a stop log structure. When the stop logs are in place, the top elevation of that structure is 1310.4 fmsl. The overflow elevation in the channel to the stop log structure is 1303.3 fmsl.

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In 1997, there was a large spring runoff that occurred when the stop logs were not in place, allowing water to flow into Twin Lakes, filling those lakes and overflowing into Mud Lake. This lake basin did fill enough to exit through the basin outlet, which is in the northeast quarter of Section 20. It then flowed north toward Redfield Lake.

The Department of Interior United States Geological Survey 1909 Geologic Atlas reports that in the spring of 1897 there was enough runoff that it resulted in Turtle Creek flowing into an old channel running east into Twin Lakes.

Manmade influences around the lakes are roads, culverts, and manmade diversions. In the 1930's, Game, Fish and Parks constructed a diversion dam on Turtle Creek and a diversion ditch to connect Turtle Creek with a natural drainage into Twin Lakes. Recent improvements near Twin Lakes include the realignment of SD Highway 281, which lies just east of Mud Lake.

The physical evidence used in identifying the OHWM are erosion, changes in the character of the soil, boulder lines, change in slope, growth and destruction of terrestrial vegetation. Ms. Beck discussed Attachment No. 8 of her report. It is an Ordinary High Water Mark evidence graph. Ms. Beck also discussed Attachment No. 10 of her report, which are photographs of boulder lines, trees, erosion lines, the dam on Turtle Creek, the diversion channel entrance from Turtle Creek, the overflow area, and the diversion channel downstream of the stop log structure.

Ms. Beck noted that the outlet for Twin Lakes is a natural overflow elevation at 1299.6 fmsl. The outlet is located between Twin Lakes and Mud Lake. Referring to Attachment No. 1 of her report, Ms. Beck pointed out the location of the outlet. In addition to this outlet, there is a basin outlet, which when Mud Lake and Twin Lakes fill the level is high enough that water will back up the inlet channel and go north. The basin outlet is 1301.4 fmsl.

The chief engineer recommended that the Ordinary High Water Mark for Twin Lakes be established at elevation 1298.8 fmsl and that the outlet for Twin Lakes be established at 1299.6 fmsl. The chief engineer also recommended validation of Recognized Vested Water Right Claim No. 1635-3 for sufficient water to maintain the Ordinary High Water Mark of 1298.8 fmsl.

Ms. Best offered DENR Exhibit 4 - the Ordinary High Water Mark Evidence Graph, and DENR Exhibit 5 - Ms. Beck's Report on Twin Lakes, Spink County, Ordinary High Water Mark. The exhibits were accepted into the record.

Responding to a question from Mr. Hieb, Ms. Beck testified that at the time she was doing her investigation at Twin Lakes, the lake level was about 1298.2 fmsl. Ms. Beck also answered questions from Mr. Hieb regarding the sizes of certain trees at the lake, the township road, and the locations of Russian olive trees.

Referring to Attachment No. 4 of Ms. Beck's report, Jerry Woolledge stated that on September 20, 1995, the lake level was 1296.8 fmsl and water was still covering the township road. He said there is also a graded road along the tree line. The water level on September 18, 2002, was 1298.0 fmsl and the road is still under water at that elevation. Mr. Woolledge said 1298.0 fmsl is above the Ordinary High Water Mark of Twin Lakes.

Ms. Beck said she did not survey the road that was under water.

Leslie Petersen, GF&P, was administered the oath by Chairman Rollag. She testified that there is a public record for the use of Twin Lakes for hunting, fishing, and recreational purposes both in the past and the present time. There is a boat ramp on the east side of the lake. Ms. Petersen stated that GF&P also owns upland property adjacent to the lake as well as property that is under water at this time.

Ms. Best offered DENR Exhibit 6 - a map showing the land owned by GF&P (red outlined area). The exhibit was accepted into the record.

Ms. Petersen stated that GF&P has fish-stocking records for Twin Lakes going back to 1910. Throughout those years, GF&P stocked large-mouth bass, yellow perch, northern pike, walleye and black crappie. In the last 10 years GF&P has stocked over 750,000 walleye fingerlings, 830 adult black crappies, 1.2 million northern pike fingerlings, and over 52,000 yellow perch juveniles.

Ms. Petersen testified that GF&P supports the chief engineer's recommendation that the OHWM be established at 1298.8 fmsl. [GF&P](#) sees this elevation as a reasonable OHWM elevation based upon the physical evidence Ms. Beck found during her investigation.

Roland Odland was administered the oath by Chairman Rollag. He stated that he is in favor of the chief engineer's recommendation for the OHWM.

Jerry Wooledge was administered the oath by Chairman Rollag. He testified that the OHWM for Twin Lakes should be lower than 1298.8 fmsl. Mr. Wooledge pointed out on Exhibit 3 the location of his house and the township road. He stated that the water has gone down some since the 1996-1997 flooding. Mr. Wooledge said the township never graded the road because there was no need to do so. He said the island that is in Section 4 used to be a peninsula with a road. The road is now under water. Mr. Wooledge said there also used to be a farm house on the peninsula.

Mr. Wooledge stated that he lost 20 to 30 acres of Russian olive trees and beach areas because of the high water levels. He said his biggest concern is that the road is under about a foot of water.

Mr. Wooledge asked the board to set the OHWM about one foot lower than what the chief engineer recommends.

Mr. Hieb asked Mr. Wooledge how much the water would have to go down in order for the road to be out of the water. Mr. Wooledge answered that some of the road on the west end started coming out of the water last fall. He said the water would have to go down another foot for the whole road to be out of the water.

Mr. Odland said lowering the OHWM one foot won't make any difference because when the wind blows, it would just wash the road out.

Brian Schone was administered the oath by Chairman Rollag. Mr. Schone said his main concern is that property rights are protected.

Mr. Schone asked if the law says that in order to set the OHWM, manmade influences need to be thrown out. He asked if the manmade ditch affects the OHWM.

Mr. Guhin read SDCL 43-17-23, which states that manmade influences, either those that have been constructed to lower the mark or those constructed to raise the mark, shall be disregarded unless the influences have been lawfully constructed or have existed and been accepted for a period of time determined by the Water Management Board to be the equivalent of natural conditions.

Ms. Best asked Ms. Beck to explain the significance of Photograph No. 2 on Attachment No. 10 of her report. Ms. Beck said Photograph No. 2 is near Mr. Woledge's property. This photograph shows the cut banks that Mr. Woledge was referring to. The toe of this large cut bank is at about 1301.2 fmsl and the top is 1306.5 fmsl.

Responding to a question from Mr. Hieb, Ms. Beck explained how the trees are used in determining what the OHWM should be.

Chairman Rollag requested board action. Board discussion took place.

Motion by Brink, seconded by Freeman, that the Ordinary High Water Mark for Twin Lakes, Spink County be established at elevation 1298.8 feet mean sea level; that the outlet for Twin Lakes be established at elevation 1299.6 feet mean sea level; and validation of Recognized Vested Water Right Claim No. 1635-3 for sufficient water to maintain the Ordinary High Water Mark of 1298.8 feet mean sea level. Motion carried.

The parties waived Findings of Fact and Conclusions of Law.

WATER PERMIT APPLICATION NO. 6364-3, JENSEN ROCK AND SAND: Don Stroup presented his report on the application.

The application proposes to impound approximately 18 acre feet of Spring Creek water at a road crossing dam to ensure water availability during periods of diminished precipitation and stream flow at the Herreid, Campbell County, SD, commercial gravel washing operation. The applicant presently holds Water License No. 4918-3 authorizing the diversion of 0.67 cfs from Spring Creek for non-consumptive use at the gravel washing operation.

Jensen Rock and Sand, Inc. submitted this application as a result of an on-site investigation of their Herreid operation performed in response to concern that a road crossing dam was impeding water flow in Spring Creek.

The main access road to the gravel washing site crosses Spring Creek. This crossing is constructed of dirt and rock fill with two 36-inch metal culverts almost completely blocked on

their upstream sides with notched metal plates. The lower notch is about four feet above the base of the stream's channel. During high stream flow, the plates are removed to prevent washout of the crossing.

Mr. Stroup stated that the Jensen's hold Water License No. 4918-3 authorizing the diversion of 0.67 cfs of Spring Creek water from May 1 through September 30 annually. The water is drawn from this impoundment, which was not included in the water right, then used for the gravel washing operation, and recirculated through a settling pond back to the source after use.

The water source for the impoundment is Spring Creek about five miles east northeast of Herreid in Campbell County. The USGS had a gauging station about two miles west of Highway 83, downstream from this dam. Data from that stream gauge indicates that Spring Creek is an intermittent stream with significant flows only occurring during spring snowmelt and spring and early summer rains.

The USGS topographic map for the area shows an intermittent, low gradient stream with natural ponding of water along its course.

Mr. Stroup stated that after this application was public noticed there were 96 petitioners regarding this application. The department met with some of the petitioners and the applicant and the parties came to an agreement.

The chief engineer recommended approval of Application No. 6364-3, Jensen Rock and Sand, Inc., with the following qualifications:

1. Water Permit No. 6364-3 authorizes a dam on Spring Creek with a storage capacity of 18.0 acre feet of water. The permit allows for one annual fill of the dam unless written orders are issued by the chief engineer.
2. The dam must be constructed with a bypass mechanism capable of bypassing all or part of the inflow as directed by the chief engineer to satisfy downstream domestic use, including livestock water and prior water rights. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be bypassed.
3. Plans for the bypass mechanism shall be prepared and submitted to the Water Rights Program for approval prior to issuance of Water Permit No. 6364-3. The design must provide a means to bypass inflows to the dam.
4. A permanent benchmark from a local datum shall be established near the dam for the purpose of referencing the dam height at the 18.0 acre feet storage capacity. The location of the benchmark shall be described and identified on a map by direction and distance from a section corner. The survey notes, map and description of the benchmark will be held by the Water Rights Program.

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Rick Cain, attorney for Jensen Rock and Sand, said they have come to an agreement with the petitioners and are in agreement with the chief engineer's recommended qualifications.

Mark Kroontje, Herreid, stated that the petitioners are in agreement with the chief engineer's recommendation.

Motion by Freeman, seconded by Loucks, to approve Water Permit Application No. 6364-3, Jensen Rock and Sand, Inc. subject to the qualifications set forth by the chief engineer. Motion carried.

ADJOURN: Chairman Rollag declared the meeting adjourned.

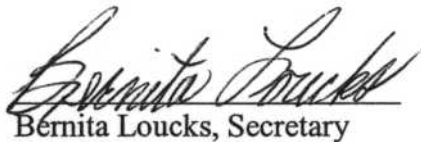
A court reporter was present for this meeting and a transcript of the proceedings may be obtained by contacting Capital Reporting Services, PO Box 903, Pierre, SD 57501; telephone number 605-224-7611.

The meeting was also tape recorded and duplicate cassette tapes may be obtained by contacting the Department of Environment and Natural Resources, 523 East Capitol Avenue, Pierre, SD 57501; telephone number 605-773-3886.

Approved this 7th day of May, 2003.



Dwayne Rollag, Chairman



Bernita Loucks, Secretary

SEVEN YEAR REVIEW OF FUTURE USE PERMITS CONSIDERED
BY THE WATER MANAGEMENT BOARD ON March 5, 2003

FU Permit No.	Permit Holder	Year Issued	Source	Last Reviewed	Submitted letter requesting retention of permit	Submitted pump records (annually)	Amount Recommended
1443-2	West Dakota Water Development District	1976	Missouri River	1995	yes	0	¹ 10,000 ac-ft
5219-3	City of Canton	1988	Dakota Formation	1996	yes	427 ac-ft	¹ 1,175 ac-ft
5862-3	City of Watertown	1996	Big Sioux:North Aquifer	1996	yes	4,142 ac-ft	¹ 3,700 ac-ft

¹ this is the amount originally approved

WATER MANAGEMENT BOARD MEETING

March 5 & 6, 2003

Qualifications: wi -well interference wcr -well construction rules iq - irrigation questionnaire lf - low flow

Unopposed New Water Permit Applications Issued Based on the Chief Engineer Recommendations

1778-1	Spring Creek Ranch LLC	Spearfish	LA	0.40 cfs	SHD	1 well-Minnelusa Formation	Wi, 1 special
1780-1	Rod Woodruff	Spearfish	MD	0.444 cfs	Commercial	1 well-Madison Aquifer	Wi, wcr, 2 special
1782-1	Floyd Johnson	San Jose CA	PK	0.04 cfs	SHD/livestock	1 well-Fox Hills Formation	Wi
2367B-2	Battle Creek Ranch Limited	Hermosa	CU	No add'l	No add'l	Add'l div pt - Battle Creek	Lf, iq
2392B-2	Minnekahta Springs Develop. Group, LLC	Hot Springs	FR	No add'l	Commercial/rec/domestic	Reinstate No. 2392A-2	Lf, 2 special
2485-2	Melvin Schmidt Jr.	White River	MT	0.89 cfs	160 acres	1 well-Arikaree Formation	Wi, wcr, iq
2489-2	Hermosa Water Users Assoc.	Hermosa	CU	0.56 cfs	RWS	1 well-Madison Formation	Wi, wcr, 2 special
2491-2	Alvin E Merchen	Hot Springs	FR	0.042 cfs	SHD	1 well-Minnelusa Formation	Wi
2492-2	Rushmore Forest Products	Hill City	PE	0.56 cfs	Industrial	7 wells-Precambrian rock	Wi
2493-2	Jeff Johnson	Tuthill	BT	2.0 cfs	140 acres	1 well-Ogallala Formation	Wi, wcr, iq
2494-2	Kenneth Wilson	Canton NC	PE	1.28 cfs	90 acres	Rapid Creek	Iq, 1 special
2495-2	Cobblestone Ridge LLC	Piedmont	PE/MD	0.17 cfs	SHD	1 well-Minnelusa Formation	Wi, 1 special
2497-2	Marty Vanderploeg	Tuthill	BT	0.22 cfs	26 acres	Little White River	Iq, 1 special
5554A-3	Stillson Oil Co. Inc.	Sisseton	RB	No add'l	Commercial	1 well-Pleistocene Unknown	Wi
5940A-3	Brown Day Marshall RWS	Britton	ML	Expand future use area		Middle James:Columbia Aqu	3 special
6365-3	City of Yankton	Yankton	YA	2.23 cfs	100 acres	1 add'l well-Niobrara Form.	Wi, wcr,iq,l special
6367-3	Foley Family Limited Partner.	Yankton	YA	3.0 cfs	210 acres	Missouri River	Iq
6368-3	Sandra Eitemiller	Armour	CM	2.0 cfs	198 acres	1 well-Choteau West Aquifer	Wi, wcr, iq
6369-3	US Fish & Wildlife Service	Denver CO	HM	82.12 AF	FWP	Runoff	1 special
6371-3	Brown Day Marshall RWS	Britton	ML	2.89 cfs	RWS	2 wells-Middle James:Columbia	Wi, 2 special
6372-3	Virgil Tjeerdsma	Tyndall	BH	No add'l	123 acres	1 well-Choteau-Tyndall Aqu.	Wi, iq
6373-3	Ernest R. Namminga	Springfield	BH	1.78 cfs	128 acres	1 well-Niobrara Formation	Wi, wcr, iq
6378-3	Jim Bye	Yankton	YA	4.56 cfs	320 acres	2 wells-Missouri:Elk Point	Wi, wcr, iq
6379-3	Leon Vanderlei	Springfield	BH	2.0 cfs	160 acres	1 well-Niobrara Formation	Wi, wcr, iq
6380-3	Glymar, Inc.	Centerville	CL	0.95 cfs	80 acres	1 well-Parker Centerville	Wi, iq